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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/835,316	04/17/2001	Seiji Umemoto	Q64129	5326

7590

02/03/2003

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EXAMINER

ERDEM, FAZLI

ART UNIT

PAPER NUMBER

2826

DATE MAILED: 02/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/835,316

Applicant(s)

UMEMOTO ET AL.

Examiner

Fazli Erdem

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-15 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Allowable Subject Matter

1. Claim 3 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4-8,10, and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Colgan et al. (6,483,498) in view of Kurihara et al. (6,501,529) further in view of Akimoto et al. (JP01146327) further in view of Inou (5,774,107) further in view of Sato et al. (6,507,337).

Regarding Claims 1, 2, 4-9 and 14, Colgan et al. disclose a liquid crystal display with integrated resistive touch sensor. Liquid crystal display includes a first substrate having a first conductive layer formed on it. A linearization pattern is formed on the first conductive layer for applying voltage gradients across the first conductive layer. A flexible polarizer is included having a second conductive layer formed on it facing the first conductive layer across a gap formed between, the polarizer providing a contact surface such that a touched position on the polarizer causes contact between the first conductive layer and the second conductive layer and

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identifying a location of the touched position. Colgan et al. fail to disclose the touch panel on the back side of the LCD panel, claimed layer structure on the LCD and the touch panels and the gap and the electrode structure in the touch panel. However, Kurihara et al. disclose a liquid crystal display element integrated with a touch sensor where the touch sensor is on the opposite side of the LCD panel. Furthermore Akimoto et al. disclose touch panels on both sides of the LCD panel. Inou et al. disclose a display apparatus with input functions where the claimed layer structure of the LCD panel and the touch panel are disclosed. Sato et al. disclose a touch panel with the required gap and the electrode structure inside the touch panel.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required touch panel orientation with respect to the LCD panel, LCD and touch panel layer structure and the gap and the electrode inside the touch panel structure as in Colgan et al. as taught by Kurihara et al., Akimoto et al., Inou, and Sato et al. respectively in order to have an LCD device with more better performing touch structure.

3. Claim 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Colgan et al. (6,483,498) in view of Kurihara et al. (6,501,529) further in view of Akimoto et al. (JP01146327) further in view of Inou (5,774,107) further in view of Sato et al. (6,507,337) further in view of Kubo et al. (6,456,279).

Regarding Claim 9, Colgan et al. as taught by Kurihara et al., Akimoto et al., Inou, and Sato et al. disclose all the claimed subject matter except they fail to show a semi-transmissive structure. However, Kubo et al. disclose a liquid crystal display device with a touch panel where the semi-transmissive structure is shown.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the semi-transmissive structure in Colgan et al. as taught by Kurihara et al., Akimoto et al., Inou, and Sato et al. combination as taught by Kubo et al. in order to have an LCD structure with better functionality.

4. Claim 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Colgan et al. (6,483,498) in view of Kurihara et al. (6,501,529) further in view of Akimoto et al. (JP01146327) further in view of Inou (5,774,107) further in view of Sato et al. (6,507,337) further in view of Okuda et al. (5,963,280).

Regarding Claim 11, Colgan et al. as taught by Kurihara et al., Akimoto et al., Inou, and Sato et al disclose all the claimed subject matter except they fail to show a macromolecular dispersion structure. However, Okuda et al. disclose a liquid crystal display device with a touch panel where the macromolecular dispersion structure is shown.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the macromolecular structure in Colgan et al. as taught by Kurihara et al., Akimoto et al., Inou, and Sato et al. combination as taught by Okuda et al. in order to have an LCD structure with better functionality.

5. Claims 12 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Colgan et al. (6,483,498) in view of Kurihara et al. (6,501,529) further in view of Akimoto et al. (JP01146327) further in view of Inou (5,774,107) further in view of Sato et al. (6,507,337) further in view of Takatori et al. (6,504,592).

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Regarding Claims 12 and 13, Colgan et al. as taught by Kurihara et al., Akimoto et al., Inou, and Sato et al disclose all the claimed subject matter except they fail to show a cholesteric LCD structure and protrusion structure. However, Takatori et al. disclose a liquid crystal display device with a touch panel where the cholesteric LCD structure and the protrusion structure are shown.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the cholesteric LCD structure and protrusion structure in Colgan et al. as taught by Kurihara et al., Akimoto et al., Inou, and Sato et al. combination as taught by Takatori et al. in order to have an LCD structure with better functionality.

6. Claim 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Colgan et al. (6,483,498) in view of Kurihara et al. (6,501,529) further in view of Akimoto et al. (JP01146327) further in view of Inou (5,774,107) further in view of Sato et al. (6,507,337) further in view of Yamagata et al. (6,088,024).

Regarding Claims 12 and 13, Colgan et al. as taught by Kurihara et al., Akimoto et al., Inou, and Sato et al disclose all the claimed subject matter except they fail to show the method of input detection method. However, Yamagata et al. disclose a liquid crystal display device with a touch panel where the input detection method is shown.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the input detection method Colgan et al. as taught by Kurihara et al., Akimoto et al., Inou, and Sato et al. combination as taught by Yamagata et al.. in order to make an LCD structure with better functionality.

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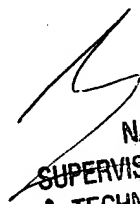
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fazli Erdem whose telephone number is (703) 305-3868. The examiner can normally be reached on M - F 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (703) 308-6601. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

FE
January 26, 2003


NATHAN J. FLYNN
SUPERVISORY PATENT EXAMINER
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